

IN THE CLAIMS

1. (Currently Amended) A smart card loading system for loading value over a wireless telecommunications network onto a smart card, said smart card loading system comprising:

a smart card;

a mobile telephone handset in communication with said telecommunications network, said handset including a subscriber identification module (SIM) that is separate from said smart card and functions to allow a user to access said telecommunications network, a smart card reader for communicating with said smart card when said smart card is inserted in said handset, and an input interface for indicating a value to be loaded onto said smart card, said handset being arranged to generate a request message to load said value onto said smart card and to load said value onto said smart card;

a gateway computer arranged to receive said request message from said handset over said telecommunications network and to retransmit said request message;

a funds issuer computer arranged to receive said request message and to debit a consumer account associated with said smart card; and

an authentication computer arranged to receive said request message and to authenticate said smart card, whereby said smart card ~~is~~ may be authorized to load said value via said handset.

2. (Canceled)

3. (Canceled)

4. (Original) A smart card loading system as recited in claim 1 wherein said authentication computer authenticates said smart card using a first cryptographic signature and generates a second cryptographic signature to authenticate a load response, whereby said transaction is secured.

5. (Currently Amended) A smart card loading system for loading value over a wireless telecommunications network onto a smart card, said smart card loading system comprising:

a smart card arranged to validate cryptographic certificates;

a mobile telephone handset in communication with said telecommunications network, said handset including a subscriber identification module (SIM) that is separate from said smart card and functions to allow a user to access said telecommunications network, a smart card reader for communicating with said a smart card, ~~which is separate from the subscriber identification module of the mobile telephone handset, arranged to be~~ when said smart card is inserted in said handset, and an input interface for indicating a value to be loaded onto said smart card, said handset being arranged to generate a funds request message which includes an authorization request certificate and being arranged to load said value onto said smart card;

a gateway computer arranged to receive said funds request message from said handset over said telecommunications network and to retransmit said funds request message;

a funds issuer computer arranged to receive said funds request message, to authenticate said smart card using said authorization request certificate, and to generate an authentication response certificate for delivery to said smart card, whereby said smart card validates ~~may validate~~ said authorization ~~response request~~ certificate received via said ~~through the mobile telephone handset and loads~~ load said value, ~~wherein the smart card is able to be removed from the handset to interface with a point-of-sale terminal through a contact interface with the point-of-sale terminal.~~

6. (Canceled)

7. (Currently Amended) A smart card loading system as recited in claim 5 ~~claim 6~~ wherein said authentication response certificate ~~funds request message~~ is implemented as an alphanumeric message integrated within an ~~with the~~ Short Message Service (SMS) message ~~channel~~ of said telecommunications network.

8. (Original) A smart card loading system as recited in claim 5 wherein in response to a successful load, said handset is arranged to generate a transaction certificate to be used for irrepudiation.

9. (Currently Amended) A method of loading value over a wireless telecommunications network onto a smart card ~~and transacting a purchase with said smart card~~, said method comprising:

receiving at a mobile telephone handset a request from a user to load a value onto said smart card inserted in said handset;

generating a funds request message which includes said value;

sending said funds request message over said telecommunications network to a funds issuer computer arranged to debit an account associated with said user;

generating a load request message including a first cryptographic signature;

sending said load request message over said telecommunications network to an authentication computer arranged to authenticate said smart card;

receiving a response message which includes a second cryptographic signature and an approval to load; and

validating said second cryptographic signature; and

loading said value onto said smart card; ~~card;~~

~~removing said smart card from said handset;~~

~~placing said removed smart card in contact with a point of sale terminal to provide a contact interface with said point of sale terminal; and~~

~~using said point of sale terminal to debit said smart card to perform a purchase.~~

10. (Canceled)

11. (Currently Amended) A method as recited in claim 9 ~~claim 10~~ wherein said response message messages are is implemented as an alphanumeric message integrated within an ~~with the Short Message Service (SMS) message channel~~ of said telecommunications network.

12. (Currently Amended) A method of loading value over a wireless telecommunications network onto a smart card, said method comprising:

receiving at a mobile telephone handset with a subscriber identification module a request from a user to load a value into a stored-value application of said smart card inserted in said handset;

opening a second application on said smart card capable of funding said stored-value application;

generating a funds request message which includes said value and an authorization certificate;

sending said funds request message over said telecommunications network to a funds issuer computer arranged to authenticate said second application and to generate an authentication response certificate;

receiving through the mobile telephone handset to the smart card a response message which includes said authentication response certificate;

validating said authentication response certificate; and

loading said value onto said stored-value application of said smart card from said second application.

13. (Canceled)

14. (Currently Amended) A method as recited in claim 12 ~~claim 13~~ wherein said response message ~~messages are~~ is implemented as an alphanumeric message integrated within an ~~with the~~ Short Message Service (SMS) message channel ~~channel~~ of said telecommunications network.

15. (Original) A method as recited in claim 12 further comprising:

generating a transaction certificate to be used for irrepudiation.

16-22. (Canceled)

Please add the following new claims:

23. (New) A smart card loading system as recited in claim 1 wherein a chip command generated remotely from said mobile telephone handset and intended for said smart card is implemented as an alphanumeric message and is integrated within an SMS message of said telecommunications network.

24. (New) A method as recited in claim 9 further comprising:
removing said smart card from said handset;
placing said removed smart card into association with a smart card reader; and
using said smart card reader to debit said smart card to perform a purchase.

25. (New) A method as recited in claim 12 further comprising:
removing said smart card from said handset;
placing said removed smart card into association with a smart card reader; and
using said smart card reader to debit said smart card to perform a purchase.